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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,217	12/17/2004	Shigeru Suzuki	57965US006	7313
32692 3M INNOVAT	7590 01/24/200 TIVE PROPERTIES CO	EXAMINER		
PO BOX 3342	7	NGUYEN, CHAU N		
ST. PAUL, MN 55133-3427			ART UNIT	PAPER NUMBER
			2831	
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SHORTENED STATUTOR	RY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE	
3 MONTHS 01/24/2007			PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

······································		Application No.	Applicant(s)				
Office Action Summary		10/519,217	SUZUKI ET AL.				
		Examiner	Art Unit				
		Chau N. Nguyen	2831				
Period fo	The MAILING DATE of this communication or re Reply	appears on the cover sheet with	the correspondence address				
	ORTENED STATUTORY PERIOD FOR REI	DI VIS SET TO EXPIRE 3 MON	NTH(S) OR THIRTY (30) DAYS				
WHIC - Exter after - If NC - Failu Any	CHEVER IS LONGER, FROM THE MAILING nsions of time may be available under the provisions of 37 CFR SIX (6) MONTHS from the mailing date of this communication. It period for reply is specified above, the maximum statutory per to reply within the set or extended period for reply will, by state to reply within the set or extended period for reply will, by state ply received by the Office later than three months after the management of the management. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICA 1.136(a). In no event, however, may a replication will apply and will expire SIX (6) MONTH atute, cause the application to become ABAN	ATION. y be timely filed S from the mailing date of this communication. IDONED (35 U.S.C. § 133).				
Status		·					
1)⊠	Responsive to communication(s) filed on 07	7 <u>December 2006</u> .					
2a)⊠	This action is FINAL . 2b) ☐ This action is non-final.						
3)[Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
	closed in accordance with the practice unde	er <i>Ex par</i> te <i>Quayl</i> e, 1935 C.D. 1	1, 453 O.G. 213.				
Dispositi	on of Claims						
4)⊠	Claim(s) 1-10 is/are pending in the applicati	on.					
	4a) Of the above claim(s) is/are withdrawn from consideration.						
5)[Claim(s) is/are allowed.						
6)⊠	Claim(s) <u>1-6 and 8-10</u> is/are rejected.						
·	Claim(s) <u>7</u> is/are objected to.						
8)	Claim(s) are subject to restriction and	d/or election requirement.					
Applicati	on Papers						
9)□	The specification is objected to by the Exam	iner.	•				
10)	The drawing(s) filed on is/are: a) \Box a	ccepted or b) objected to by	the Examiner.				
	Applicant may not request that any objection to t	he drawing(s) be held in abeyance	. See 37 CFR 1.85(a).				
	Replacement drawing sheet(s) including the corr		•				
11)	The oath or declaration is objected to by the	Examiner. Note the attached C	Office Action or form PTO-152.				
Priority u	nder 35 U.S.C. § 119						
12) 🗌	Acknowledgment is made of a claim for fore	ign priorițy under 35 U.S.C. § 1	19(a)-(d) or (f).				
a)[☐ All b) ☐ Some * c) ☐ None of:						
	1. Certified copies of the priority documents have been received.						
•	2. Certified copies of the priority docume						
	3. Copies of the certified copies of the p	•	ceived in this National Stage				
* 0	application from the International Burdee the attached detailed Office action for a l	, , , , , , , , , , , , , , , , , , , ,	ceived				
	tee the attached detailed Office action for a r	ist of the defined copies not re-	Serveu.				
Attachmen	(s)						
1) Notic	e of References Cited (PTO-892)		nmary (PTO-413)				
	e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO/SB/08)		Mail Date mal Patent Application				
Paper No(s)/Mail Date 6) Other:							

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DETAILED ACTION

Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

 Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
- 3. Claims 1-4 and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. (WO 95/11542) in view of Braun et al. (5,277,459).

Nakamura et al. discloses a cold shrink tube unit comprising an elastic tube member (15) with an opening end and a hollow cylindrical slidingly detachable core member (Figures 3-4) removably provided inside a seal region of said elastic tube member, having a predetermined length from said opening end, to hold said seal region in an elastically expanded state, wherein said core member comprises a body portion (31a) defining a hollow cylinder and a sliding portion (31b) integrally connected with one axial end of said body portion and in cooperation with the body portion, said sliding portion having flexibility permitting it to be turned over and laid on an outer circumferential surface of said body portion, the sliding portion being formed adjacent to the body portion, and said slidingly detachable core member being provided inside said seal region (re claims 1 and 8).

Nakamura et al. does not disclose said body portion (31a) including two or more plate-like sections capable of being combined with each other to form said hollow cylinder, the sliding portion (31b) including two or more sliding sections, nor at least one joint portion pivotally connecting the two or more plate-like sections with each other and the joint portion being free from contact with the sliding sections.

Braun et al. (Figure 5) discloses a core member (60) which is formed by two or more plate-like sections (80, 82) capable of being combined with each other to

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form a hollow cylinder and comprising mutually independent parts (re claim 2), a joint portion (66) pivotally connecting the plate-like portions with each other to form the hollow cylinder (re claim 3), the joint portion (66) being free from contact with another section of the core member (re claims 1 and 8), and the joint being structured to deform under external force to allow the adjoining plate-like portions to be pivoted (re claim 4). It would have been obvious to one skilled in the art to modify the core member of Nakamura et al., including the body portion 31a and the sliding portion 31b, to comprise two or more adjoining sections with at least one joint portion pivotally connecting the body portion (the plate-like sections) with each other as taught by Braun et al. to avoid the need of unthreading the core member from the free end of cable.

Re claims 9 and 10, the modified core member of Nakamura et al. discloses each individual sliding section being integrally connected with an axial end of each individual plate-like section.

4. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura et al. in view of Braun et al. as applied to claim 1 above, and further in view of Osnami et al. (6,472,600).

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The combination of Nakamura et al. and Braun et al. discloses the invention substantially as claimed except for the plate-like sections being provided with engagable end faces capable of being engage with each other in a form of said hollow cylinder, and which include reinforcing portions formed in peripheral end regions, including said engagable end faces, of said plate-like sections for holding said plate-like sections in a form of said hollow cylinder against an external force, and said reinforcing portions being formed in said engagable end faces, adapted to be engaged with each other, of said mutually adjoining plate-like sections, and respectively including concave and convex configurations detachably fitted with each other.

Osnami et al. discloses a core member (Figures 14 and 18) comprising two or more plate-like sections (the core member 4a formed by two plate-like sections 8 and 9) which are provided with engagable end faces capable of being engage with each other in a form of said hollow cylinder and which include reinforcing portions formed in peripheral end regions, including said engagable end faces, of said plate-like sections for holding said plate-like sections in a form of said hollow cylinder against an external force, and said reinforcing portions being formed in said engagable end faces, adapted to be engaged with each other, of said mutually adjoining plate-like sections, and respectively including concave and convex

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configurations detachably fitted with each other. It would have been obvious to one skilled in the art to include reinforcing portions having concave and convex configuration as taught by Osnami et al. in the peripheral end regions and the engagable end faces of the plate-like portions of Nakamura et al. to further secure the two portions together.

Allowable Subject Matter

5. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments filed Dec. 7th 2006 have been fully considered but they are not persuasive.

In response to applicant's argument that the examiner has given no substantive factual evidence or analysis of motivation to combine, it can be seen from the Nakamura et al. and Braun et al. references that both are directed to hollow cylinder which can be provided onto an elongate object (in this case, it is a cable in Nakamura et al. and a pipe in Braun et al.). Braun et al. discloses that the

hollow cylinder (Figures 5 and 7) can be snapped or locked (col. 3, line 9) onto an end of the elongate object without the need of threading the hollow cylinder over such end. This factual evidence is the reason that one skilled in the art would have modified the hollow cylinder of Nakamura et al. to comprising of sections or portions which are pivotally connected together.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the suggestion to do so is found in the references themselves.

In response to applicant's argument that Braun et al. makes no teaching or suggestion regarding disposing the hinged pipe between a cold shrink elastic covering member and a cable, nor does it teach or suggest pulling the hinged pipe from between a cold shrink elastic covering member and a cable, nor does it teach or suggest completely removing the hinged pipe from the final resultant product, it has been held that, the test for obviousness is not whether the features of a

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secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Moreover, as disclosed in applicant's specification ([0009] and [0010]), the purpose of having the claimed core member is to simplify the assembling process. Likewise, Braun et al. teaches that the core member (the pipe connector) comprises two sections or portions pivotally connected together so that the core member can be just snapped or locked onto the elongate object, simplifying the assembling process.

Summary

7. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire

THREE MONTHS from the mailing date of this action. In the event a first reply is

filed within TWO MONTHS of the mailing date of this final action and the

advisory action is not mailed until after the end of the THREE-MONTH shortened

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statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N. Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Chau N Nguyen Primary Examiner Art Unit 2831

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